REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current Amendment, Applicant basically:

1. Amend claims 22 – 30 in a manner suggested by the office action.
2. Respectfully traverses all prior art rejections.

B. THE CLAIMS ARE STATUTORY

The Office Action rejects claims 22-30 under 35 USC 101 as allegedly being directed to non-statutory subject matter (see enumerated paragraph 5 of the Office Action). The office action suggests that the limitation "non-transitory computer readable medium" be added to the claims to "properly render the claims in statutory form". By the current amendment Applicants have complied with the suggestion and are appreciative.

C. THE PRIOR ART REJECTIONS

The Office Action rejects claims 1-5, 7-8, 10-13 and 22-30 under 35 USC 103(a) as being unpatentable over U.S. Patent 6,728,208 to Puuskari in view of U.S. Publication 2003/0018793 to Mora and further in view of U.S. Patent 7,127,518 to Vange et al (see enumerated paragraph 7 of the Office Action)

D. PATENTABILITY OF THE CLAIMS

Claim 1 is directed to a method of communicating data within a data communication system. Claim 1 includes steps of transmitting, from a higher layer transmitting protocol entity, a protocol data unit to a lower layer transmitting protocol entity. Claim 1 further recites receiving, in the higher layer transmitting protocol entity, a transmission result from said lower layer transmitting protocol entity, said transmission result reporting the result of the transmission of the protocol data unit by said lower layer

transmitting protocol entity. Finally, claim 1 recites deciding, responsive to the transmission result, whether the higher layer transmitting protocol entity should re-provide the lower layer transmitting protocol entity with the protocol data unit. Claim 1 recites that the higher layer transmitting protocol entity does not re-provide the protocol data unit to the lower layer transmitting protocol entity until after it has received the transmission result.

It is important to understand what is being communicated to the higher layer transmitting protocol entity in the "transmission result." In a typical prior art data communication scheme, one would expect the transmission result to report whether the data unit was successfully received by the lower layer transmitting protocol entity. But that is not what is recited in claim 1. Instead, the "transmission result" recited in claim 1 reports whether the lower layer transmitting protocol entity has successfully transmitted the data unit on to a third entity. This is why the language of claim 1 recites that the transmission result reports the result of the transmission of the protocol data unit by said lower layer transmitting protocol entity.

Applicant also notes that the method recited in claim 1 handles the re-transmission of data in a way that is different from traditional data communications schemes. In traditional data communications schemes, the higher layer transmitting protocol entity would send a data unit to the lower layer transmitting protocol entity, and it would wait to receive an acknowledgement message from the lower layer entity indicating that the lower layer entity has received the data unit. If no acknowledgment message is received after a predetermined period of time has elapsed, the higher layer entity assumes that the data unit was not received by the lower layer entity, and the higher layer entity will re-send the same data unit to the lower layer entity. But this is not what is recited in claim 1.

Claim 1 specifically recites that the higher layer transmitting protocol entity does not re-provide the protocol data unit to the lower layer transmitting protocol entity until after it has received the transmission result. This means that no re-transmission of a data

unit can occur until the higher layer transmitting protocol entity has received a message from the lower layer transmitting protocol entity.

The Puuskari reference discloses a method of communicating data within a data communications system. Puuskari indicates that one or more of the elements of the data communication system may be capable of re-transmitting data. However, Puuskari fails to disclose or suggest any methods wherein a higher layer transmitting protocol entity waits to receive a transmission result from a lower layer transmitting protocol entity, and wherein the higher layer transmitting protocol entity does not re-provide data units to the lower layer transmitting protocol entity until after it has received the transmission result. Puuskari fails to disclose or suggest any details of the retransmission of data units, let alone a method wherein retransmission of data units is not performed until a transmission result has been received from the lower layer transmitting protocol entity. In fact, the Office Action admits that Puuskari does not disclose these features.

The Office Action asserts that the Mora reference discloses the features missing from Puuskari. Applicant strongly disagrees.

The Mora reference discloses a method of communicating data packets between two systems in a network. In Mora's communication scheme, two different communications protocols are possible. If the message to be sent from the first system to the second system is short, and can be encapsulated in a single data packet, the data is sent in a single data packet, and no attempt is made to ask for acknowledgment from the receiving system that the data has been received.

If the message to be sent from the first system to the second system is longer, and must be transmitted in multiple data packets, then the first system will ask the second system to acknowledge receipt of each data packet. This is accomplished by the second system sending the first system an acknowledgment message each time that a data packet is received.

Mora explains that when acknowledgment of receipt is requested, each time that the first system sends a data packet to the second system, the first system will set a timer and the timer begins running once the data packet has been sent. If the first system does

not receive an acknowledgment of receipt message from the second system before the timer runs out, the first system will assume that the data packet was lost, and the first system will automatically re-send the same data packet to the second system. This process will repeat itself until an acknowledgement message is finally received from the second system, or until the retransmission has occurred a predetermined number of times. See Mora at paragraphs 9, 10 and 90.

In view of the foregoing, it is respectfully submitted that Mora fails to disclose a method as recited in claim 1, where a higher layer transmitting protocol entity does not re-provide the protocol data unit to the lower layer transmitting protocol entity until after it has received a transmission result from the lower layer transmitting protocol entity. Instead, Mora deliberately re-sends a data packet without waiting to receive an acknowledgment message from the lower layer transmitting protocol entity. In other words, Mora operates exactly opposite to the method recited in claim 1.

Moreover, both Mora and Puuskari fail to disclose or suggest methods where the message being sent from the lower layer transmitting protocol entity back the higher layer transmitting protocol entity provides an indication of whether the lower layer transmitting protocol entity has successfully transmitted a data unit (e.g., transmitted the data unit on to yet a third entity). Instead, both Puuskari and Mora describe methods where the message being sent from the lower layer transmitting protocol entity back the higher layer transmitting protocol entity provides an indication of whether the lower layer transmitting protocol entity has successfully received a data unit.

The office action acknowledges that Puuskari as modified by Mora does not expressly teach a system and method of receiving, in a higher layer transmitting protocol entity, the transmission result; deciding, responsive to the transmission result , whether the higher layer transmission protocol entity should re-provide the lower layer transmitting protocol entity with the data protocol unit; and identifying, by the higher layer transmitting protocol entity in communication with the lower layer transmitting protocol entity, the protocol data unit by use of an identifier. However, the office action

alleges that col. 10, lines 38 – 50 of Vange et al supplies what lacks in the alleged Puuskari and Mora combination.

Vange does not rehabilitate Puuskari or Mora. Vange appears to be more directed toward employing forward error correction techniques in data communications passing between two elements of a computer network. Although the office action has referenced a specific portion of the Vange disclosure in the Office Action, the referenced portion does not appear to provide any support for the Examiner's assertions.

In view of all of the foregoing, it is respectfully submitted that Puuskari, Mora, and Vange all fail to disclose or suggest a method as recited in claim 1. Accordingly, it is respectfully submitted that claim 1 is allowable. Claims 2-5, 7, 8 and 10-13 depend from claim 1 and are allowable for the same reasons, and for the additional features which they recite.

Claim 22 is directed to a non-transitory computer readable medium storing computer software that causes higher and lower layer transmitting protocol entities to perform a method that is highly similar to the method recited in claim 1. Thus, it is respectfully submitted that claim 22 is allowable over Puuskari and Mora and Vange for all the reasons set forth above in connection with claim 1. Claims 23-30 depend from claim 22 and are allowable for the same reasons, and for the additional features which they recite.

In view of the foregoing, withdrawal of the rejection of claims 1-5, 7, 8, 10-13 and 22-30 is respectfully requested.

E. CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that additional changes are required to place the application in condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Respectfully submitted,

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